

REMARKS

The drawings have been objected to as being informal.

Claims 1– 12 are pending in the application.

Claims 1-8 and 12 have been rejected under 35 USC 103(a) as being unpatentable over US Patent Application Publication 2003/0002104.

Claims 9-11 have been objected to as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

Drawing Objections

The drawings have been objected to as being informal because all the labels on the figures are handwritten. A replacement set of formal drawings are provided herewith to correct the handwritten labels on the figures and other informalities, each corrected sheet is marked as a "Replacement sheet." No new matter has been added by these corrections. The corrected drawings should now comply with 37CFR 1.121(d).

Rejections under 35 USC 103(a)

Claims 1-8 and 12 have been rejected under 35 USC 103(a) as being unpatentable over US Patent Application Publication 2003/0002104 to Caroli et al.

Regarding claims 1 and 12, the Examiner has stated that Caroli discloses a coupler 306 and a waveband OADM 325 that passes one or more wavebands 326 and a wavelength OADM 370 that passes one or more wavebands 364. While the apparatus of Fig. 3 of Caroli may appear similar to what is claimed in independent claims 1 and 12, significant differences in the apparatus and its operation exists as discussed below.

First, in Fig. 3 of Caroli the coupler 306 is an interleaver that separates the WDM input signal into two different wavelength groups – an odd wavelength group 302 and an even wavelength group 303. This aspect is described in Caroli at Page 5, Lines 5-10. In comparison, with reference to our Fig. 2 and the description at Page 5, lines 26-28, our coupler 230 is just a power-splitter that splits the power of the WDM input signal IN into two portions, where each signal portion includes all of the wavelengths of the received WDM signal. Thus unlike Caroli, both our waveband OADM 200 and our

wavelength OADM 220 receive all of the wavelengths of WDM input signal IN. With reference to Figs 2 and 4A, this aspect is described at page 8, lines 1-6 of our specification.

A second difference over Caroli is that both the “odd wavelength” OADM unit (Fig. 3, elements 310, 320, 325) that handles the odd wavelength set 302 and the “even wavelength” OADM unit (Fig. 3, elements 360, 365, 370) that handles the even wavelength set 303 are the same in that they can pass or block signals with a “fine” granularity or resolution of a single wavelength. This aspect of Caroli is described at Paragraph [0038] on Page 5. Thus, Caroli does not disclose or suggest the use of a “waveband OADM” that can selectively pass or block signals using a “coarse” resolution that is based on “groups” of wavelengths. Thus, Caroli does not disclose or suggest a hierarchical OADM apparatus of our claim 1, whereby a “waveband OADM” provides “coarse” resolution based on a group of wavelengths and a “wavelength OADM” provides “fine” resolution based on single wavelength selectivity. Claim 1 has been amended to more clearly recite the “group of wavelengths” resolution of the waveband OADM (the second recited element) and the “wavelength” resolution of the wavelength OADM (the third recited element). This aspect is described in our specification at Page 8, lines 1-6, where waveband OADM 200 provides coarse resolution by passing or blocking one or more bands (groups of wavelengths) and wavelength OADM 210 provides fine resolution by passing or blocking one or more wavelengths.

A third difference over Caroli is that the “odd wavelength” OADM unit that operates on the odd wavelengths operates independently of the operation of the “even wavelength” OADM that operates on the even wavelengths and vice-versa. In comparison in our invention, as recited in amended claim 1, a hierarchical operational relationship exists between the wavelength OADM (the third recited element) and the waveband OADM (the second recited element). That is the wavelength OADM operates only on the band of wavelengths that were “not-passed” (i.e., blocked) by the waveband OADM (see the “providing” step of the third recited element of claim 1). Hence, Caroli does not teach or suggest the use of both a wavelength OADM and a waveband OADM, let alone describe a hierarchical interactive operational relationship between the operation of wavelength OADM and the waveband OADM, as recited in amended claim 1.

Because of the above-described three differences, Caroli cannot be said to teach, suggest, hint at, or make obvious our hierarchical OADM apparatus as now recited in amended claim 1. Thus, amended claim 1 should be allowable over Caroli, under 35 USC 103(a).

Since amended independent claim 1 should now be allowable over Caroli, under 35 USC 103(a), its dependent claims 2-8 should also be allowable since they depend from now allowable claim 1.

Independent method claim 12 has been amended to be consistent with the changes made to amended claim 1 and, as amended, now more clearly recite the above-described three functional differences that distinguish over Caroli. Thus amended independent method claim 12 should now be allowable over Caroli, under 35 USC 103(a), for the same reasons as amended claim 1.

Allowable Subject Matter

Claims 9-11 have been objected to as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

As discussed above since amended independent claim 1 should now be allowable over Caroli, under 35 USC 103(a), its dependent claims 9-11 should also be allowable since they depend from now allowable claim 1.

Additional prior Art

The additional prior art made of record and not relied upon has been noted.

Joint Inventors

The Examiners presumption is correct, the subject matter of the various claims was commonly owned at the time they were made.

Summary

In summary for the above reasons, claims 1 –12 should now be allowable under 35 USC

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103(a) and the allowance of the same is respectfully requested.

If there is any remaining issue, applicant's attorney would welcome a call from the Examiner to resolve such issue.

Respectfully,

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By



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Att: Four Replacement sheets of Drawings